Air Transat Flight 236

A case Study
What went wrong?

Example where the AMO didn’t follow the approved standards

TR02 EASA Part 145 - Successfully Applying the Regulation

Air Transat Airbus A330
291 passengers & 3 crew
Toronto to Lisbon
August 24 2001
Ran out of fuel
Aircraft was glided for more than 18 minutes before landing
dead stick at Lajes air base in the Azores
Incomplete engine modification
13 tonnes/hr leak rate
AMO didn’t comply with the Approved data.
Partially embodied an SB to an Engine

Remember this is due directly to not following approved standards
Aircraft Details

- Type: Airbus A330
- Registration: C-GITS
- Engines: Rolls Royce Trent 772B
- Location: Azores
- Date: 21 August 2001
- Fatalities: Nil
- Aircraft: Repaired

Introduction

- The cause of the accident was a fuel leak in the #2 engine, caused by an incorrect part installed in the hydraulics system by Air Transat maintenance staff.
- The engine had been replaced with an engine, lent by Rolls-Royce, from an older model which did not include a hydraulic pump.
- Despite concerns, Air Transat authorized the use of a part from a similar engine, an adaptation that did not maintain adequate clearance between the hydraulic lines and the fuel line.
- This lack of clearance, allowed chafing between the lines to rupture the fuel line, causing the leak. Air Transat accepted responsibility for the accident and was fined 250,000 Canadian dollars.
Case Study Exercise (3 hours)

- In 4 small groups, read the relevant extracts form the accident report. Then discuss the organizations weak system failures and areas of the regulations which led to this, consider the following perspectives;
  - CAMO Part M
  - AMO Part 145
  - Regulatory surveillance and involvement
  - List your suggestions on flip chart paper and be prepared to present and discuss these with the seminar

What did you conclude?

Group presentation 
and 
Seminar discussion
Organization functional failures

- Configuration control
- Work cards
- Log books
- Planning
- ICA
- “Can do” engineers
- Time pressures
- Human Factors
- Communications

Lack of understanding
SB not mandated by AD

The main issues

Part M
- Lack of planning
- Task sheets
- Lack of liaison
- Use of IT
- ICA control
- Stores inspection
- QMS

Part 145
- Not reporting
- Incorrect part installation
- Not following ICA
- Not doing inspection
- QMS

Regulator
- No robust in depth surveillance
- Not mandating SB’s
Accident report recommendations (in relation to airworthiness and maintenance)

Mandate the configuration of major components, such as an engine, be determined prior to the components being installed

- Was this enough?
- What else is there?
- What regulations and defences are in Part M and Part 145 to prevent this type of error and accident?
- Group discussion

Questions?